

ABSTRACT OF THE DISCLOSURE

There is a need to provide a semiconductor device in which strain in a bonding member resulting from the difference in thermal deformation between a lead electrode and a semiconductor chip, which are electrically bonded to each other by the bonding member, is reduced for an improved thermal fatigue lifetime and the semiconductor chip has an improved current carrying capacity and enhanced heat dissipation. In the semiconductor device having the semiconductor chip mounted on the upper surface of the case electrode by using the bonding member and a lead electrode mounted on the upper surface of the semiconductor chip by using a bonding member, while an insulating member is filled in the space of the case electrode to seal a bonded portion, a trench is provided in the upper surface of the lead electrode to reduce large thermal strain occurring at the end portion of the bonding member due to the difference in linear expansion coefficients between the lead electrode and the semiconductor chip and improve the thermal fatigue lifetime. Consideration is also given to a reduction in variations in the thickness of a connecting member.